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DICTIONARY FILE UPDATES: 12 MAY 2011 HIGHEST RN 1294039-65-8

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=> fil hcap

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REVISED CLASS FIELDS (/NCL) LAST RELOADED: Feb 2011
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Feb 2011

HCAplus now includes complete International Patent Classification (IPC)
reclassification data for the fourth quarter of 2010.

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This file contains CAS Registry Numbers for easy and accurate
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=> d ibib abs hitstr hitind l28 1-2

L28 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2011 ACS on STN
 ACCESSION NUMBER: 1990:517123 HCAPLUS Full-text
 DOCUMENT NUMBER: 113:117123
 ORIGINAL REFERENCE NO.: 113:19857a,19860a
 TITLE: Coating of substrates with ultrathin layers of
 polyesters by the Langmuir-Blodgett method
 INVENTOR(S): Wehrmann, Rolf; Schopper, Heinrich Christian;
 Nerger, Dittmar
 PATENT ASSIGNEE(S): Bayer A.-G., Germany
 SOURCE: Ger. Offen., 21 pp.
 CODEN: GWXXBX
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO. -----	KIND ----	DATE -----	APPLICATION NO. -----	DATE
DE 3830862	A1	19900322	DE 1988-3830862	198809 10
EP 359016	A2	19900321	EP 1989-115803	198908 26
EP 359016	A3	19910911		
EP 359016	B1	19941012		
R: AT, BE, CH, DE, FR, GB, IT, LI, NL, SE				
DK 8904440	A	19900311	DK 1989-4440	198909 08
FI 8904254	A	19900311	FI 1989-4254	198909 08
JP 02150429	A	19900608	JP 1989-231831	198909 08
US 5030516	A	19910709	US 1989-404727	198909 08
CA 1327296	C	19940301	CA 1989-610705	198909 08
PRIORITY APPLN. INFO.:			DE 1988-3830862	A 198809 10

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB The title process uses monomol. layers of [OZ1(R1)(R2)OCOZ2(R3)(R4)CO]n (Z1 = diol residue; Z2 = dicarboxylic acid residue; ≥1 of R1-4 = C>8 aliphatic group and the remainder are H or Me, or R1 and R2 or R3 and R4 form an alkylene ring; n = 2-80]. A solution (50 µL) of 9.63 mg diethylene glycol-di-octadecylmalonic acid copolymer in 10 mL CHCl3 was spread on H2O to give monomol. films (thickness 23.8 ± 1.4 Å) which were collected (10-40) individual layers) on aluminized polycarbonate films. Ellipsometric and x-ray scattering data for coatings of 8 polyesters are given.

IT 126367-85-9P, Diethyleneglycol-di-octadecyl malonic acid

CODEN: THSFAP; ISSN: 0040-6090

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Two new types of amphiphilic polymers, namely polyesters and polyurethanes, capable of forming monolayers at an air-water interface were synthesized. The polyesters were obtained by the condensation of both long-chain substituted diols and diesters with available materials. The amphiphilic polyurethanes were prepared by polyaddn. of long-chain diols and common diisocyanates. Pressure-area isotherms show the formation of a more-or-less liquid-analogous state. Y-mode Langmuir-Blodgett multilayers of these performed polymers can be transferred to rigid substrates with a constant transfer ratio. In polyester and polyurethane multilayers, the aliphatic side-chains are perpendicular to the film as evidenced by ellipsometric and x-ray measurements of film thickness and orientation.

IT 126367-84-8 126367-85-9

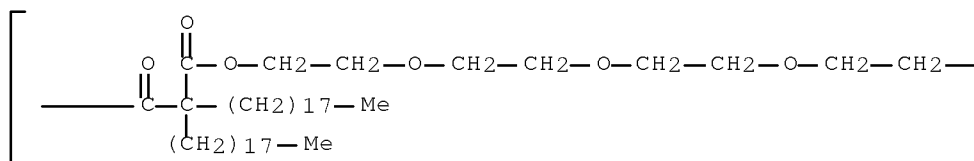
RL: PRP (Properties)

(Langmuir-Blodgett multilayer films from, preparation and characterization of)

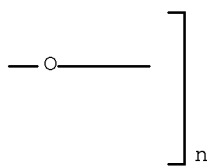
RN 126367-84-8 HCAPLUS

CN Poly[oxy-1,2-ethanediyl-oxy-1,2-ethanediyl-oxy-1,2-ethanediyl-oxy(2,2-dioctadecyl-1,3-dioxo-1,3-propanediyl)] (9CI) (CA INDEX NAME)

PAGE 1-A

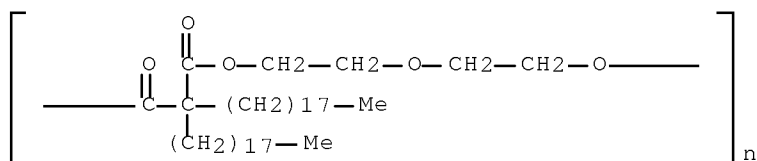


PAGE 1-B



RN 126367-85-9 HCAPLUS

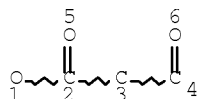
CN Poly[oxy-1,2-ethanediyl-oxy-1,2-ethanediyl-oxy(2,2-dioctadecyl-1,3-dioxo-1,3-propanediyl)] (9CI) (CA INDEX NAME)



CC 66-5 (Surface Chemistry and Colloids)
 Section cross-reference(s): 35, 36
 IT 82583-65-1 126351-55-1 126351-56-2 126351-57-3
~~126367-84-8~~ ~~126367-85-9~~ 126367-86-0
 126419-46-3
 RL: PRP (Properties)
 (Langmuir-Blodgett multilayer films from, preparation and
 characterization of)
 OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS
 RECORD (1 CITINGS)

=> d que stat l30

L2 12 SEA FILE=REGISTRY SPE=ON ABB=ON PLU=ON (105-45-3/BI
 OR 108-31-6/BI OR 115-77-5/BI OR 123-54-6/BI OR 141-32-2/
 BI OR 311342-07-1/BI OR 57472-68-1/BI OR 705973-70-2/BI
 OR 705973-71-3/BI OR 705973-72-4/BI OR 705973-73-5/BI OR
 705973-74-6/BI)
 L3 STR



NODE ATTRIBUTES:
 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
 RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 6

STEREO ATTRIBUTES: NONE

L5 152896 SEA FILE=REGISTRY SSS FUL L3
 L6 4 SEA FILE=REGISTRY SPE=ON ABB=ON PLU=ON L5 AND L2
 L8 173 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L6(L)PREP+ALL/RL
 L29 QUE SPE=ON ABB=ON PLU=ON CURE# OR CURABLE OR CURING O
 R CROSSLINK? OR CROSS(W)LINK?
 L30 15 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L8 AND L29

=> d ibib abs hitstr hitind l30 1-15

L30 ANSWER 1 OF 15 HCAPLUS COPYRIGHT 2011 ACS on STN
 ACCESSION NUMBER: 2009:750642 HCAPLUS Full-text
 DOCUMENT NUMBER: 151:150104
 TITLE: Method for preparation of solvent-based
 polyurethane curing agent containing
 low free toluene diisocyanate content for
 polyurethane coating
 INVENTOR(S): Zeng, Guangming; Kong, Shuxiang; Li, Jinghong;
 Liu, Xiaoyan; Ma, Hongxiao
 PATENT ASSIGNEE(S): Guangdong Huarun Paints Co., Ltd., Peop. Rep.
 China
 SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu,
 11pp.
 CODEN: CNXXEV

DOCUMENT TYPE: Patent
 LANGUAGE: Chinese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO. -----	KIND ----	DATE -----	APPLICATION NO. -----	DATE
CN 101456940	A	20090617	CN 2008-10220784	200812 31
CN 101456940	B	20110420	CN 2008-10220784	200812 31

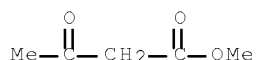
PRIORITY APPLN. INFO.: CN 2008-10220784

AB Title method comprises (1) reacting toluene isocyanate with a polyol at 40-90°C in solvent, sampling and detecting NCO content to monitor the reaction degree; and (2) adding acetoacetic ester, reacting at low temperature and sampling and detecting NCO content to monitor the reaction degree. The invention has the following advantages: (1) low cost; (2) low content of free toluene diisocyanate monomer, low viscosity and good flexibility; (3) stable product performance.

IT 105-45-3DP, Methyl acetoacetate, polymers
 RL: IMF (Industrial manufacture); RCT (Reactant);
 PREP (Preparation); RACT (Reactant or reagent)
 (preparation of solvent-based polyurethane curing agent
 containing low free toluene diisocyanate content for polyurethane
 coating)

RN 105-45-3 HCAPLUS

CN Butanoic acid, 3-oxo-, methyl ester (CA INDEX NAME)



IPCI C08G0018-30 [I,A]; C08G0018-34 [I,A]; C08G0018-78 [I,A]; C09D0175-04 [I,A]

IPCR C08G0018-30 [I,A]

CC 42-3 (Coatings, Inks, and Related Products)

ST polyurethane curing agent prepn free toluene diisocyanate content coating

IT Coating materials
 Crosslinking agents
 (preparation of solvent-based polyurethane curing agent
 containing low free toluene diisocyanate content for polyurethane
 coating)

IT Polyurethanes
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP
 (Preparation); RACT (Reactant or reagent)
 (preparation of solvent-based polyurethane curing agent
 containing low free toluene diisocyanate content for polyurethane
 coating)

IT 1170316-40-1P
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use);
 PREP (Preparation); USES (Uses)
 (preparation of solvent-based polyurethane curing agent
 containing low free toluene diisocyanate content for polyurethane

coating)

IT 56-81-5DP, Glycerol, polymers 57-55-6DP, 1,2-Propanediol, polymers 77-99-6DP, Trimethylolpropane, polymers 105-08-8DP, 1,4-Cyclohexanedimethanol, polymers 105-45-3DP, Methyl acetoacetate, polymers 107-21-1DP, Ethylene glycol, polymers 107-88-0DP, 1,3-Butanediol, polymers 110-63-4DP, 1,4-Butanediol, polymers 111-46-6DP, Diethylene glycol, polymers 112-27-6DP, Triethylene glycol, polymers 115-77-5DP, Pentaerythritol, polymers 115-84-4DP, *2-Butyl-2-ethyl-1,3-propanediol, polymers 126-30-7DP, Neopentyl glycol, polymers 126-58-9DP, Dipentaerythritol, polymers 141-97-9DP, Ethyl acetoacetate, polymers 504-63-2DP, 1,3-Propanediol, polymers 542-08-5DP, Isopropyl acetoacetate, polymers 591-60-6DP, Butyl acetoacetate, polymers 2163-42-0DP, 2-Methyl-1,3-propanediol, polymers 2388-18-3DP, polymers, preparation 5459-04-1DP, polymers 6079-90-9DP, polymers 6079-98-7DP, Glycerol triacetoacetate, polymers 7062-74-0DP, polymers 7779-75-1DP, Isobutyl acetoacetate, polymers 13018-41-2DP, polymers 14276-67-6DP, polymers 22208-25-9DP, Trimethylolpropane triacetoacetate, polymers 23235-61-2DP, Ditrithymethylolpropane, polymers 24871-74-7DP, polymers 25265-71-8DP, Dipropylene glycol, polymers 26471-62-5DP, TDI, polymers 32818-60-3DP, Pentaerythritol tetraacetoacetate, polymers 32818-62-5DP, polymers 58213-74-4DP, polymers 58213-75-5DP, polymers, preparation 145020-19-5DP, polymers 183377-21-1DP, polymers 202935-62-4DP, polymers 1170316-38-7P 1170316-39-8P

RL: IMF (Industrial manufacture); RCT (Reactant);

PREP (Preparation); RACT (Reactant or reagent)

(preparation of solvent-based polyurethane curing agent containing low free toluene diisocyanate content for polyurethane coating)

L30 ANSWER 2 OF 15 HCAPLUS COPYRIGHT 2011 ACS on STN

ACCESSION NUMBER: 2008:558440 HCAPLUS Full-text

DOCUMENT NUMBER: 149:10832

TITLE: Method for preparing carbon dicarbonyl light-sensitive resin

INVENTOR(S): Pang, Laixing; Yang, Jianwen

PATENT ASSIGNEE(S): Guangzhou Boxing Chemical Technology Co., Ltd., Peop. Rep. China

SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 8pp.

CODEN: CNXXEV

DOCUMENT TYPE: Patent

LANGUAGE: Chinese

FAMILY ACC. NUM. COUNT: 1

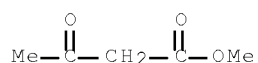
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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CN 101173017	A	20080507	CN 2007-10030756	20071010
PRIORITY APPLN. INFO.:			CN 2007-10030756	20071010

AB The title method comprises (1) mixing a polyacrylate (e.g., trimethylolpropane triacrylate) and an active methylene-containing β -dicarbonyl compound (e.g., Et acetoacetate), (2) adding an insol. solid basic catalyst (e.g., aluminum

oxide-carried potassium fluoride), heating and Michael addition reacting, and (3) separating the resin from the solid basic catalyst. The resin has good storage stability, rapid curing without photo initiators, and is used for photocurable paint and printing ink.

IT 105-45-3DP, Methyl acetoacetate, polymers
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (method for preparing carbon dicarbonyl light-sensitive resin for)
 RN 105-45-3 HCAPLUS
 CN Butanoic acid, 3-oxo-, methyl ester (CA INDEX NAME)

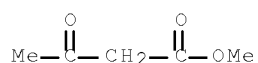


IPCI C08F0020-10 [I,A]; C07C0069-54 [I,A]; C07C0067-46 [I,A]; C09D0004-00 [N,A]
 IPCR C08F0020-10 [I,A]; C07C0067-46 [I,A]; C07C0069-54 [I,A]; C09D0004-00 [I,A]
 CC 37-3 (Plastics Manufacture and Processing)
 Section cross-reference(s): 42
 IT 9003-53-6D, Polystyrene, modified
 RL: CAT (Catalyst use); USES (Uses)
 (crosslinked; method for preparing carbon dicarbonyl light-sensitive resin for)
 IT 105-45-3DP, Methyl acetoacetate, polymers 123-54-6DP, Acetoacetone, polymers 504-02-9DP, 1,3-Cyclohexanedione, polymers 1522-22-1DP, polymers 3524-68-3DP, Pentaerythritol triacrylate, polymers 4986-89-4DP, Pentaerythritol tetraacrylate, polymers 13048-33-4DP, 1,6-Hexanediol diacrylate, polymers 15625-89-5DP, Trimethylolpropane triacrylate, polymers 42978-66-5DP, Tripropylene glycol diacrylate, polymers
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (method for preparing carbon dicarbonyl light-sensitive resin for)

L30 ANSWER 3 OF 15 HCAPLUS COPYRIGHT 2011 ACS on STN
 ACCESSION NUMBER: 2008:442041 HCAPLUS Full-text
 DOCUMENT NUMBER: 148:428064
 TITLE: Decorative sheets with high interlayer adhesion, and their manufacture
 INVENTOR(S): Tanaka, Masayoshi
 PATENT ASSIGNEE(S): Dai Nippon Printing Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 31pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	
JP 2008080601	A	20080410	JP 2006-262092	20060927
PRIORITY APPLN. INFO.:			JP 2006-262092	200609

- AB The decorative sheets consist of, successively, substrate sheets, ink layers having solid-fill-ink layers and/or patterned-ink layers, adhesive layers, transparent resin layers, and surface protective layers, wherein the ink layers and/or adhesive layers are formed by applying aqueous coating agents containing (A) water-soluble or water-dispersible blocked ≥ 2 functional polyisocyanates which hardly dissociate into free isocyanate groups and blocking agents at coating temperature or at temperature of mixing components of the coating agents, and (B) water-soluble or water-dispersible compds. bearing ≥ 2 carbodiimide groups. Preferably, the blocked polyisocyanates undergo dissociation upon heat impressed in or after forming the transparent resin layers. The decorative sheets may further have back primer layers at opposite side of the substrate sheet from the ink layers. In manufacture of the decorative sheets, heat is impressed after forming the ink- and adhesive layers in order to dissociate the blocking agents. The aqueous coating agents are environmentally benign and have long pot life, and provide isocyanate-crosslinked ink and/or adhesive layers by heat treatment, and the decorative sheets show high delamination resistance. Thus, polypropylene substrate sheet (a) was gravure printed with primer (b)-forming aqueous polyurethane-isocyanate coating solution on one side and dried, then the other side was gravure printed with, successively, solid-full-ink-layer (c)-forming aqueous coating solution containing water-thinned polyurethane white ink (Eau De WKE White) 100, polyisocyanate (Aquanate 120) blocked with 3,5-dimethylpyrazole 2.5, and carbodiimide compound (Carbodilite E 04) 2.5 parts, patterned-ink-layer (d)-forming aqueous coating solution containing the same blocked polyisocyanate 2.5, carbodiimide compound 2.5, and water-thinned polyurethane inks 100 parts, and adhesive layer (e)-forming aqueous coating solution containing the blocked polyisocyanate 6, the same carbodiimide compound 10, and water-thinned polyurethane adhesive (HO 18) 100 parts, then two-tier transparent resin constituted by maleic acid-modified polypropylene layer and random propylene copolymer layer was laminated on the adhesive layer by coextrusion and hot embossed at 160° to give uneven surface, whereto protective layer (f)-forming aqueous polyurethane-isocyanate coating solution was further gravure printed, and 7 day-aged at 25° to give decorative sheet (as above).
- IT 105-45-3DP, reaction products with polyisocyanates
 RL: IMF (Industrial manufacture); RCT (Reactant);
 PREP (Preparation); RACT (Reactant or reagent)
 (blocked crosslinking agents; decorative sheets with
 ink/adhesive layers made from coating agents containing blocked
 ≥ 2 functional polyisocyanates and carbodiimides)
- RN 105-45-3 HCAPLUS
- CN Butanoic acid, 3-oxo-, methyl ester (CA INDEX NAME)



- IPCI B32B0033-00 [I,A]; B32B0025-08 [I,A]; C09D0011-00 [I,A]; C09J0175-04 [I,A]; C09J0011-06 [I,A]
- IPCR B32B0033-00 [I,A]; B32B0025-08 [I,A]; C09D0011-00 [I,A]; C09J0011-06 [I,A]; C09J0175-04 [I,A]
- CC 38-3 (Plastics Fabrication and Uses)
- ST decorative sheet ink adhesive layer crosslinker blocked polyisocyanate; carbodiimide water resistant agent coating decorative sheet

- IT Crosslinking agents
(blocked polyisocyanates; decorative sheets with ink/adhesive layers made from coating agents containing blocked ≥ 2 functional polyisocyanates and carbodiimides)
- IT Amines, reactions
Esters, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction products with polyisocyanates, blocked crosslinking agents; decorative sheets with ink/adhesive layers made from coating agents containing blocked ≥ 2 functional polyisocyanates and carbodiimides)
- IT 774595-04-9DP, Aquanate 120, reaction products with blocking agents
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(blocked crosslinking agents, in ink/adhesive layers; decorative sheets with ink/adhesive layers made from coating agents containing blocked ≥ 2 functional polyisocyanates and carbodiimides)
- IT 67-51-6DP, reaction products with polyisocyanates
105-45-3DP, reaction products with polyisocyanates
108-18-9DP, Diisopropylamine, reaction products with polyisocyanates
108-59-8DP, reaction products with polyisocyanates
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(blocked crosslinking agents; decorative sheets with ink/adhesive layers made from coating agents containing blocked ≥ 2 functional polyisocyanates and carbodiimides)
- IT 75-13-8DP, Isocyanic acid, esters, polymers
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(blocked, crosslinking agents; decorative sheets with ink/adhesive layers made from coating agents containing blocked ≥ 2 functional polyisocyanates and carbodiimides)
- IT 774595-04-9, Aquanate 120
RL: MOA (Modifier or additive use); USES (Uses)
(crosslinking agents, in ink/adhesive layers; decorative sheets with ink/adhesive layers made from coating agents containing blocked ≥ 2 functional polyisocyanates and carbodiimides)

L30 ANSWER 4 OF 15 HCAPLUS COPYRIGHT 2011 ACS on STN

ACCESSION NUMBER: 2007:727444 HCAPLUS Full-text

DOCUMENT NUMBER: 147:119797

TITLE: Radiation-curable compositions

containing substituted β -dicarbonyl compounds and film forming therewith

INVENTOR(S): Yatsugi, Kenichi; Toda, Tetsuya; Takeda, Miho

PATENT ASSIGNEE(S): Dainippon Ink and Chemicals, Inc., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 39pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2007169487	A	20070705	JP 2005-369616	

200512
22

PRIORITY APPLN. INFO.:

JP 2005-369616

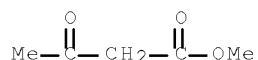
200512
22

AB The compns., forming layers by exposure to actinic rays (in atmospheric of O concentration $\leq 15\%$), contain compds. having ≥ 1 substituted β -dicarbonyl moiety COCR₁R₂CO [R₁, R₂ = electron-withdrawing group, C₁-8 alkyl, linear alkyl having electron-withdrawing group at β , γ , or δ position to the 2 carbonyl, where R₁ = R₂ = Me (or Et) when both of two are C₁-8 alkyl]. Thus, 4 parts Et 3-acetyl-3-methyl-4-oxopentanoate (prepared from 2,4-pentanedione, Et bromoacetoacetate, and MeI) were blended with Ebecryl 5129 (urethane acrylate) 45, trimethylolpropane triacrylate 25, and tripropylene glycol diacrylate 30 parts, applied on Al, and exposed to UV through a polyethylene film to give a coated Al sheet showing excellent resistance when rubbed with a MEK-submerged cotton and pencil hardness HB.

IT 105-45-3DP, Methyl acetoacetate, reaction products with trimethylolpropane
 RL: CAT (Catalyst use); IMF (Industrial manufacture);
 PREP (Preparation); USES (Uses)
 (photocurable coatings containing substituted β -dicarbonyl compds. and showing good sensitivity to actinic rays)

RN 105-45-3 HCAPLUS

CN Butanoic acid, 3-oxo-, methyl ester (CA INDEX NAME)



IPCI C08F0002-50 [I,A]; G03F0007-031 [I,A]
 IPCR C08F0002-50 [I,A]; G03F0007-031 [I,A]
 CC 42-7 (Coatings, Inks, and Related Products)
 ST substituted beta carbonyl contg radiation curable coating;
 ethyl acetylmethyloxopentanoate initiator photocurable acrylic
 urethane coating

IT Coating materials
 (radiation-curable, solvent-resistant; photocurable
 coatings containing substituted β -dicarbonyl compds. and showing
 good sensitivity to actinic rays)

IT 105-45-3DP, Methyl acetoacetate, reaction products with
 trimethylolpropane
 RL: CAT (Catalyst use); IMF (Industrial manufacture);
 PREP (Preparation); USES (Uses)
 (photocurable coatings containing substituted β -dicarbonyl
 compds. and showing good sensitivity to actinic rays)

L30 ANSWER 5 OF 15 HCAPLUS COPYRIGHT 2011 ACS on STN
 ACCESSION NUMBER: 2006:558460 HCAPLUS Full-text
 DOCUMENT NUMBER: 145:46624
 TITLE: Photocurable Michael addition polymers
 INVENTOR(S): Fansler, Duane D.; Lewandowski, Kevin M.;
 Gaddam, Babu N.
 PATENT ASSIGNEE(S): 3M Innovative Properties Company, USA
 SOURCE: U.S. Pat. Appl. Publ., 13 pp.
 CODEN: USXXCO
 DOCUMENT TYPE: Patent

LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO. -----	KIND ----	DATE -----	APPLICATION NO. -----	DATE
US 20060128825	A1	20060615	US 2004-9588	20041210
US 7307106	B2	20071211		
WO 2006065369	A2	20060622	WO 2005-US39099	20051028
WO 2006065369	A3	20060803		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
EP 1819737	A2	20070822	EP 2005-820205	20051028
EP 1819737	B1	20110330		
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR				
CN 101076545	A	20071121	CN 2005-80042533	20051028
CN 101076545	B	20110302		
JP 2008523205	T	20080703	JP 2007-545465	20051028
AT 503774	T	20110415	AT 2005-820205	20051028
IN 2007CN02490	A	20070907	IN 2007-CN2490	20070611
KR 2007093097	A	20070917	KR 2007-7015654	20070709
PRIORITY APPLN. INFO.:			US 2004-9588	A
				20041210
			WO 2005-US39099	W
				20051028

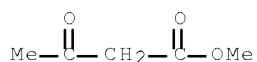
ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB A curable composition is described comprising a Michael donor component, a polyacryl component, and a monoacryl component, where at least one of the Michael donor or monoacryl components comprises a pendent photoinitiator group. A Michael addition polymer that is the Michael addition reaction product of these components is also described.

IT ~~105-45-3DP~~, Methyl acetoacetate, michael adduct acrylic derivs.
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (photocurable Michael addition polymers)

RN 105-45-3 HCAPLUS

CN Butanoic acid, 3-oxo-, methyl ester (CA INDEX NAME)



INCL 522115000

IPCI C08J0003-28 [I,A]; C08G0063-00 [I,A]; C08G0071-04 [I,A]; C08G0075-00 [I,A]; C08F0002-48 [I,A]

IPCR C08J0003-28 [I,A]; C08G0063-00 [I,A]; C08F0002-48 [I,A]; C08G0071-04 [I,A]; C08G0075-00 [I,A]

NCL 522/115.000; 522/034.000; 522/035.000; 522/036.000; 522/042.000; 522/044.000; 522/046.000; 522/178.000; 522/182.000; 522/904.000; 522/905.000; 528/220.000; 528/222.000; 528/224.000; 528/226.000; 528/228.000

CC 37-3 (Plastics Manufacture and Processing)
 Section cross-reference(s): 42

IT ~~105-45-3DP~~, Methyl acetoacetate, michael adduct acrylic derivs. 13048-33-4DP, Sr 238, polymers with michael adduct acrylic derivs. 251960-17-5P 890411-14-0DP, michael adduct acrylic derivs. 890411-15-1P
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (photocurable Michael addition polymers)

REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L30 ANSWER 6 OF 15 HCAPLUS COPYRIGHT 2011 ACS on STN

ACCESSION NUMBER: 2005:1074171 HCAPLUS Full-text

DOCUMENT NUMBER: 143:347660

TITLE: Functional group-containing polyoxyalkylene polymers with low impurity salts

INVENTOR(S): Ueshima, Kenji

PATENT ASSIGNEE(S): Kaneka Corp., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 24 pp.
 CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2005272733	A	20051006	JP 2004-90555	200403

25

JP 4575010 B2 20101104
 PRIORITY APPLN. INFO.: JP 2004-90555

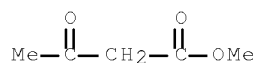
200403
 25

AB Title polymers have a structure containing unsatd. groups
 $O[CH_2CH(R_1CH:CH_2)O]_nCH_2CHOH(R_1CH:CH_2)$, wherein R_1 = alkane, alkene, alkyne, ether, ester, ketone, amide, and aromatic group and $n = \geq 0$ integer. Thus, propylene oxide was polymerized using polypropylene glycol triol and a zinc hexacyanocobaltate glyme complex to give hydroxy-terminated polypropylene glycol with mol. weight 7200, 100 g of which was mixed with a sodium methoxide solution, heated at 120° to remove methanol, 8 mL allyl glycidyl ether was added therein and reacted, 3.8 mL dimethoxymethylsilane was added therein and reacted in the presence of platinum vinylsiloxane for 2 h to give a polyoxyalkylene having crosslinkable silane, 100 parts of the resulting compound was mixed with 2 parts U 220 and stored for 1 day to give a elastic product.

IT 105-45-3DP, Methyl acetoacetate, reaction products with allyl-terminated polypropylene glycol triols and dimethoxymethylsilane, hydrolyzed
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (preparation of functional group-containing polyoxyalkylene polymers with low impurity salts)

RN 105-45-3 HCAPLUS

CN Butanoic acid, 3-oxo-, methyl ester (CA INDEX NAME)



IPCI C08G0065-10 [I,A]; C08G0065-14 [I,A]; C08G0065-332 [I,A];
 C08G0065-336 [I,A]

IPCR C08G0065-331 [I,A]; C08G0065-336 [I,A]; C08G0065-10 [I,A];
 C08G0065-14 [I,A]; C08G0065-332 [I,A]

CC 35-8 (Chemistry of Synthetic High Polymers)
 Section cross-reference(s): 37

IT 96-33-3DP, Methyl acrylate, reaction products with allyl-terminated polypropylene glycol triols and dimethoxymethylsilane, hydrolyzed
 105-45-3DP, Methyl acetoacetate, reaction products with allyl-terminated polypropylene glycol triols and dimethoxymethylsilane, hydrolyzed 106-92-3DP, Allyl glycidyl ether, reaction products with polypropylene glycol triols and dimethoxymethylsilane, hydrolyzed 674-82-8DP, Diketene, reaction products with allyl-terminated polypropylene glycol triols and dimethoxymethylsilane, hydrolyzed 16881-77-9DP, Dimethoxymethylsilane, reaction products with allyl-terminated polypropylene glycol triols, hydrolyzed 25322-69-4DP, Polypropylene glycol, triols, reaction products with allyl glycidyl ether and dimethoxymethylsilane, hydrolyzed
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (preparation of functional group-containing polyoxyalkylene polymers with low impurity salts)

DOCUMENT NUMBER: 142:221270
 TITLE: UV-~~curable~~ compositions with good adhesion and decreased odor
 INVENTOR(S): Takayanagi, Yasuo
 PATENT ASSIGNEE(S): Dainippon Ink and Chemicals, Inc., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO. -----	KIND ----	DATE -----	APPLICATION NO. -----	DATE
JP 2005041923	A	20050217	JP 2003-200372	20030723
PRIORITY APPLN. INFO.:			JP 2003-200372	20030723

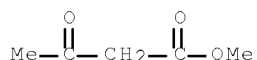
OTHER SOURCE(S): MARPAT 142:221270

AB The compns., useful for coatings, inks, etc., contain (A) compds. having ≥ 1 epoxy groups in a mol., (B) photochem. cationic polymerization catalysts, and (C) Michael adducts of compds. having ≥ 2 acryloyl groups in a mol. with R1COCH2COR2 (R1 = C1-18 alkyl, aryl, alicyclic; R2 = C1-18 alkyl, aryl, alicyclic, alkoxy). Thus, a coating comprising alicyclic epoxy compound (Cyracure UVR 6105) 70, photochem. cationic polymerization catalyst (Cyracure UVI 6990) 4, and Michael adducts of trimethylolpropane triacrylate with Me acetoacetate 26 was coated on a PET film and on an Al sheet and irradiated with UV lamp at 160 W/cm to show pencil hardness (JIS K 5400) 2H, good adhesion to the substrates and solvent resistance, and no odor after curing.

IT 105-45-3DP, Methyl acetoacetate, Michael adduct with trimethylolpropane triacrylate
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (Michael adduct-containing UV-~~curable~~ compns. with good adhesion and decreased odor)

RN 105-45-3 HCAPLUS

CN Butanoic acid, 3-oxo-, methyl ester (CA INDEX NAME)



IPCI C08G0059-42 [ICM,7]
 IPCR C08G0059-42 [I,A]
 CC 42-9 (Coatings, Inks, and Related Products)
 IT Michael reaction
 (Michael adduct-containing UV-~~curable~~ compns. with good adhesion and decreased odor)
 IT Epoxy resins, uses
 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
 (Michael adduct-containing UV-~~curable~~ compns. with good

- adhesion and decreased odor)
- IT Polymerization catalysts
(cationic, photochem.; Michael adduct-containing UV-curable compns. with good adhesion and decreased odor)
- IT 105-45-3DP, Methyl acetoacetate, Michael adduct with trimethylolpropane triacrylate 123-54-6DP, Acetyl acetone, Michael adduct with trimethylolpropane triacrylate 15625-89-5DP, Trimethylolpropane triacrylate, Michael adduct with Me acetoacetate or acetyl acetone
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(Michael adduct-containing UV-curable compns. with good adhesion and decreased odor)
- IT 25085-98-7, Cyacure UVR 6105
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(Michael adduct-containing UV-curable compns. with good adhesion and decreased odor)
- IT 104558-95-4, Cyacure UVI 6990
RL: CAT (Catalyst use); USES (Uses)
(photochem. cationic polymerization catalyst; Michael adduct-containing UV-curable compns. with good adhesion and decreased odor)

L30 ANSWER 8 OF 15 HCAPLUS COPYRIGHT 2011 ACS on STN

ACCESSION NUMBER: 2004:510202 HCAPLUS Full-text

DOCUMENT NUMBER: 141:55121

TITLE: Curable liquid compositions containing

acrylate groups and β -dicarbonyl compounds,
reactive compound preparation, and use

INVENTOR(S): Lachowicz, Artur; Gaudl, Kai-Uwe; Nahm, Steven
H.; Grahe, Gerwald F.

PATENT ASSIGNEE(S): Dainippon Ink and Chemicals, Inc., Japan

SOURCE: Eur. Pat. Appl., 24 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	
EP 1431320	A1	20040623	EP 2002-28724	200212 20
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
CA 2510278	A1	20040708	CA 2003-2510278	200312 19
WO 2004056897	A1	20040708	WO 2003-JP16383	200312 19
W: CA, JP, US				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR				
EP 1578824	A1	20050928	EP 2003-789615	200312 19

EP 1578824 B1 20060531
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC,
 PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU,
 SK
 JP 2006510779 T 20060330 JP 2004-562063 200312
 19
 AT 328018 T 20060615 AT 2003-789615 200312
 19
 ES 2262004 T3 20061116 ES 2003-789615 200312
 19
 US 20060148924 A1 20060706 US 2006-539048 200602
 03
 PRIORITY APPLN. INFO.: EP 2002-28724 A 200212
 20
 WO 2003-JP16383 W 200312
 19

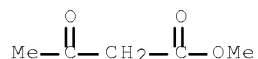
ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB The curable liquid compns. contain reactive acrylate groups, which are produced by reacting monofunctional vinyl compds. and multifunctional acrylic esters with β -dicarbonyl compds. having >1 acidic C-H function. The material can be polymerized or crosslinked by free radical polymerization, UV (UV) radiation or electron-beam. The curable liquid compns. are suitable for producing curable coatings, printing inks, adhesives, or molding compns.

IT 105-45-3DP, Methyl acetoacetate, reaction products with polyester, Michael adduct with Bu acrylate, polymer with dipropylene glycol diacrylate 705973-70-2P 705973-71-3P, 2-Acetoacetoxyethyl methacrylate-butyl acrylate-1,6-hexanediol diacrylate-methyl methacrylate-methyl vinyl ketone copolymer 705973-74-6P, Butyl acrylate-diethyl malonate-dipropylene glycol diacrylate-trimethylolpropane triacrylate copolymer
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); PREP (Preparation); USES (Uses)
 (curable liquid compns. of the reaction of multifunctional acrylates, monofunctional vinyl compds., and β -dicarbonyl compds.)

RN 105-45-3 HCAPLUS

CN Butanoic acid, 3-oxo-, methyl ester (CA INDEX NAME)



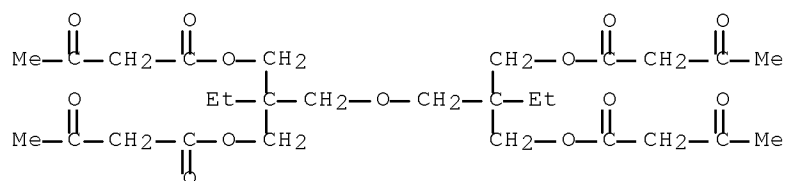
RN 705973-70-2 HCAPLUS

CN Butanoic acid, 3-oxo-, 2-[[2,2-bis[(1,3-dioxobutoxy)methyl]butoxy]methyl]-2-ethyl-1,3-propanediyl ester, polymer with butyl 2-propenoate and oxybis(methyl-2,1-ethanediyl) di-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 183377-21-1

CMF C28 H42 O13

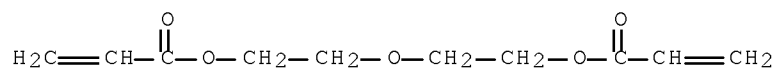


CM 2

CRN 57472-68-1

CMF C12 H18 O5

CCI IDS

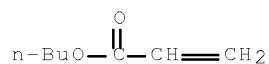


2 (D1—Me)

CM 3

CRN 141-32-2

CMF C7 H12 O2



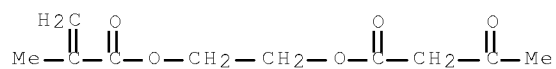
RN 705973-71-3 HCAPLUS

CN Butanoic acid, 3-oxo-, 2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl ester, polymer with 3-buten-2-one, butyl 2-propenoate, 1,6-hexanediyl di-2-propenoate and methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 21282-97-3

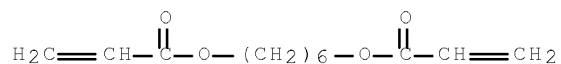
CMF C10 H14 O5



CM 2

CRN 13048-33-4

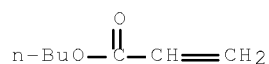
CMF C12 H18 O4



CM 3

CRN 141-32-2

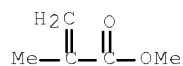
CMF C7 H12 O2



CM 4

CRN 80-62-6

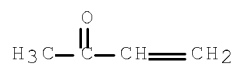
CMF C5 H8 O2



CM 5

CRN 78-94-4

CMF C4 H6 O



RN 705973-74-6 HCAPLUS

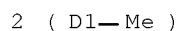
CN Propanedioic acid, diethyl ester, polymer with butyl 2-propenoate, 2-ethyl-2-[[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate and oxybis(methyl-2,1-ethanediyl) di-2-propenoate (9CI) (CA INDEX NAME)

CM 1

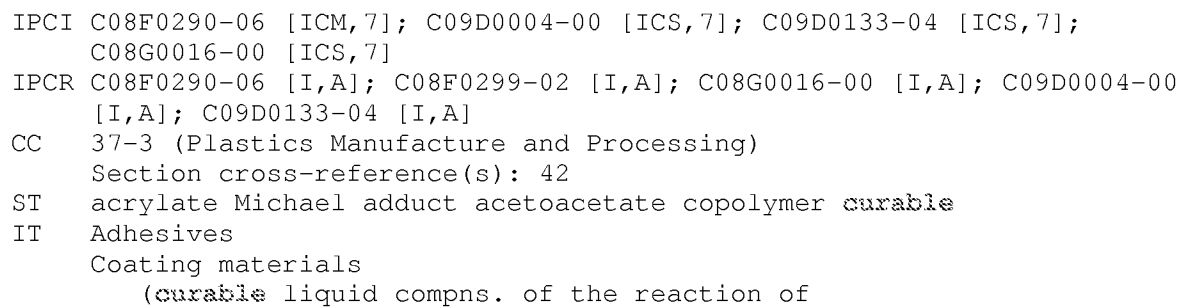
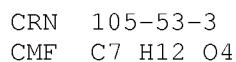
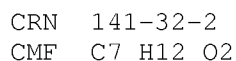
CRN 57472-68-1

CMF C12 H18 O5

CCI IDS



CRN 15625-89-5
CMF C15 H20 O6



multifunctional acrylates, monofunctional vinyl compds., and β -dicarbonyl compds.)

IT Rosin

RL: IMF (Industrial manufacture); POF (Polymer in formulation); PREP (Preparation); USES (Uses)

(maleated, reaction products with pentaerythritol, acetoacetylated, Michael adduct with Bu acrylate, polymer with dipropylene glycol diacrylate; curable liquid compns. containing)

IT Inks

(printing; curable liquid compns. of the reaction of multifunctional acrylates, monofunctional vinyl compds., and β -dicarbonyl compds.)

IT 105-45-3DP, Methyl acetoacetate, reaction products with polyester, Michael adduct with Bu acrylate, polymer with dipropylene glycol diacrylate 108-31-6DP, Maleic anhydride, reaction products with rosin, Michael adduct with Bu acrylate, polymer with dipropylene glycol diacrylate 115-77-5DP, Pentaerythritol, reaction products with rosin, Michael adduct with Bu acrylate, polymer with dipropylene glycol diacrylate 123-54-6DP, Acetylacetone, reaction products with polyacrylate 141-32-2DP, Butyl acrylate, Michael adduct with acetoacetylated polyester, polymer with dipropylene glycol diacrylate 57472-68-1DP, Dipropylene glycol diacrylate, polymer with Michael adduct of Bu acrylate and acetoacetylated polyester 311342-07-1DP, 2-Methyl-1,3-propanediol-phthalic anhydride-trimethylolpropane copolymer, reaction products with Me acetoacetate, Michael adduct with Bu acrylate, polymer with dipropylene glycol diacrylate 705973-70-2P 705973-71-3P, 2-Acetoacetoxyethyl methacrylate-butyl acrylate-1,6-hexanediol diacrylate-methyl methacrylate-methyl vinyl ketone copolymer 705973-72-4DP, Butyl acrylate-dipropylene glycol diacrylate-trimethylolpropane triacrylate copolymer, reaction products with acetylacetone 705973-73-5DP, Acrylonitrile-dipropylene glycol diacrylate-trimethylolpropane triacrylate copolymer, reaction products with acetylacetone 705973-74-6P, Butyl acrylate-diethyl malonate-dipropylene glycol diacrylate-trimethylolpropane triacrylate copolymer
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PREP (Preparation); USES (Uses)
(curable liquid compns. of the reaction of multifunctional acrylates, monofunctional vinyl compds., and β -dicarbonyl compds.)

OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L30 ANSWER 9 OF 15 HCAPLUS COPYRIGHT 2011 ACS on STN

ACCESSION NUMBER: 2001:56981 HCAPLUS Full-text

DOCUMENT NUMBER: 134:117209

TITLE: Fluoropolymer-containing abrasion-resistant oil- and waterproofing cationic electrodeposition coatings and their manufacture

INVENTOR(S): Hatta, Masao; Nishimura, Shigefumi; Shimizu, Yoshiji

PATENT ASSIGNEE(S): Shimizu K. K., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001019897	A	20010123	JP 1999-193437	19990707
JP 4533476	B2	20100901	JP 1999-193437	19990707

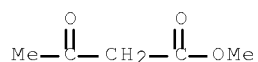
PRIORITY APPLN. INFO.: JP 1999-193437

AB The coatings contain (A) 28-72 parts copolymers of H₂C:CHR₁CO₂R₂ [R₁ = H, Me; R₂ = CH₂CF₃, CH₂(CF₂)_nCF₂H, CH(CF₃)₂, CH₂CH₂(CF₂)₇CF₃; n = 1, 3] 10-80, amine-modified (meth)acrylic acid 5-30, OH-modified (meth)acrylic acid 5-30, and styrene or (meth)acrylate esters 10-30%, (B) 18-42 parts diisocyanates blocked by phenol, cresol, methylethylene ketoxime, acetoxime, ε-caprolactam, or acetylacetone, (C) 10-30 parts polysiloxanes prepared by condensation of 50-80% trialkoxysilanes and 20-50% dialkoxysilanes, (D) 10-50 parts fine powders of tetrafluoroethylene (co)polymers, poly(trifluorochloroethylene), or poly(vinylidene fluoride) with particle size 0.1-10 μm, and (F) organic acids to neutralize the copolymers of (A). An aqueous composition containing 2,2,2-trifluoroethyl methacrylate-1H,1H,2H,2H-heptadecafluorodecyl methacrylate-dimethylaminoethyl methacrylate-2-hydroxyethyl acrylate-Bu acrylate-styrene copolymer, acetoacetate-blocked HDI-IPDI copolymer, methyltrimethoxysilane-phenyltrimethoxysilane-dimethyldimethoxysilane-diphenyldimethoxysilane copolymer, PTFE, and lactic acid was electrodeposited on a Al panel to form a coating layer.

IT 105-45-3DP, Methyl acetoacetate, polyisocyanate blocked by
 RL: IMF (Industrial manufacture); RCT (Reactant); TEM
 (Technical or engineered material use); PREP (Preparation)
 ; RACT (Reactant or reagent); USES (Uses)
 (fluoropolymer-containing cationic electrodeposition coatings)

RN 105-45-3 HCAPLUS

CN Butanoic acid, 3-oxo-, methyl ester (CA INDEX NAME)



IPCI C09D0133-16 [I,A]; C09D0005-44 [I,A]; C09D0125-08 [I,A]; C09D0127-12 [I,A]; C09D0133-06 [I,A]; C09D0133-14 [I,A]; C09D0175-04 [I,A]; C09D0183-04 [I,A]

IPCR C09D0133-16 [I,A]; C09D0005-44 [I,A]; C09D0125-08 [I,A]; C09D0127-12 [I,A]; C09D0133-06 [I,A]; C09D0133-14 [I,A]; C09D0175-04 [I,A]; C09D0183-04 [I,A]

CC 42-7 (Coatings, Inks, and Related Products)

ST fluoropolymer cationic electrodeposition coating abrasion resistance; oilproofing waterproofing electrodeposition coating silicone; acrylic polyurethane cationic electrodeposition coating; blocked polyisocyanate crosslinker electrodeposition coating

IT Crosslinking agents
(latent, blocked polyisocyanates; fluoropolymer-containing cationic electrodeposition coatings)

IT Polyureas
RL: IMF (Industrial manufacture); RCT (Reactant); TEM (Technical or engineered material use); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(polyamide-, blocked, crosslinking agents;
fluoropolymer-containing cationic electrodeposition coatings)

IT Polyamides, uses
RL: IMF (Industrial manufacture); RCT (Reactant); TEM (Technical or engineered material use); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(polyurea-, blocked, crosslinking agents;
fluoropolymer-containing cationic electrodeposition coatings)

IT 142518-21-6DP, Hexamethylene diisocyanate-isophorone diisocyanate copolymer, acetoacetate-blocked
RL: IMF (Industrial manufacture); RCT (Reactant); TEM (Technical or engineered material use); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(crosslinking agents; fluoropolymer-containing cationic electrodeposition coatings)

IT 105-45-3DP, Methyl acetoacetate, polyisocyanate blocked by 127-06-0DP, Acetoxime, polyisocyanate blocked by
RL: IMF (Industrial manufacture); RCT (Reactant); TEM (Technical or engineered material use); PREP (Preparation)
; RACT (Reactant or reagent); USES (Uses)
(fluoropolymer-containing cationic electrodeposition coatings)

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L30 ANSWER 10 OF 15 HCAPLUS COPYRIGHT 2011 ACS on STN

ACCESSION NUMBER: 2001:12507 HCAPLUS Full-text

DOCUMENT NUMBER: 134:86974

TITLE: Liquid oligomers containing unsaturation

INVENTOR(S): Moy, Thomas M.; Dammann, Laurence; Loza, Roman

PATENT ASSIGNEE(S): Ashland Inc., USA

SOURCE: PCT Int. Appl., 34 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 2001000684	A1	20010104	WO 1999-US14624	19990628
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 9949621	A1	20010131	AU 1999-49621	

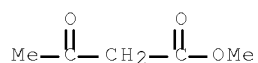
PRIORITY APPLN. INFO.: WO 1999-US14624 A 19990628
19990628

AB The liquid oligomeric compns. of this invention are made by the Michael addition reaction of acetoacetate functional donor compds. with multifunctional acrylate receptor compds. where the equivalent ratios of multifunctional acrylate to acetoacetate vary from $\geq 1:1$ to $\geq 13.2:1$ depending on the functionality of both multifunctional acrylate and acetoacetate. Unusable gelled or solid oligomer products occur below the claimed ranges. The oligomers of this invention are further crosslinked to make coatings, laminates and adhesives.

IT ~~105-45-3DP~~, Methyl acetoacetate, Michael addition reaction products with acrylates
RL: IMF (Industrial manufacture); PREP (Preparation)
(liquid oligomers containing unsatn.)

RN 105-45-3 HCAPLUS

CN Butanoic acid, 3-oxo-, methyl ester (CA INDEX NAME)



IPCI C08F0002-50 [ICM,6]; C08F0002-46 [ICM,6,C*]; C08F0022-10 [ICS,6]; C08F0022-00 [ICS,6,C*]; C08F0122-10 [ICS,6]; C08F0122-00 [ICS,6,C*]; C08G0002-02 [ICS,6]; C08G0002-16 [ICS,6]; C08G0002-00 [ICS,6,C*]

IPCR C08F0002-46 [I,C*]; C08F0002-50 [I,A]; C08F0290-00 [I,C*]; C08F0290-06 [I,A]; C08G0016-00 [I,C*]; C08G0016-00 [I,A]

CC 37-3 (Plastics Manufacture and Processing)

IT 102-01-2DP, Acetoacetanilide, Michael addition reaction products with acrylates ~~105-45-3DP~~, Methyl acetoacetate, Michael addition reaction products with acrylates 105-56-6DP, Ethyl cyanoacetate, Michael addition reaction products with acrylates 108-59-8DP, Dimethyl malonate, Michael addition reaction products with acrylates 141-97-9DP, Ethyl acetoacetate, Michael addition reaction products with acrylates 4986-89-4DP, Pentaerythritol tetraacrylate, Michael addition reaction products with acetoacetates 6079-98-7DP, Michael addition reaction products with acrylates 13018-41-2DP, Michael addition reaction products with acrylates 13048-33-4DP, Michael addition reaction products with acetoacetates 14276-67-6DP, Michael addition reaction products with acrylates 15625-89-5DP, Trimethylolpropanetriacrylate, Michael addition reaction products with acetoacetates 32818-60-3DP, Pentaerythritol tetraacetoacetate, Michael addition reaction products with acrylates 32818-62-5DP, Michael addition reaction products with acrylates 42978-66-5DP, Tripropylene glycol diacrylate, Michael addition reaction products with acetoacetates 114866-94-3DP, Pentanedione, Michael addition reaction products with acrylates
RL: IMF (Industrial manufacture); PREP (Preparation)
(liquid oligomers containing unsatn.)

OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD (3 CITINGS)

REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE

IN THE RE FORMAT

L30 ANSWER 11 OF 15 HCAPLUS COPYRIGHT 2011 ACS on STN
 ACCESSION NUMBER: 2000:55813 HCAPLUS Full-text
 DOCUMENT NUMBER: 132:65080
 TITLE: Preparation of one-component moisture-
~~curable~~ polyurethane adhesives and
 sealants
 INVENTOR(S): Xie, Lei; Hu, Shoufan; Yao, Guochen; Wang,
 Guoxiang
 PATENT ASSIGNEE(S): Jilin Science & Technology Development
 Industrial Corp., Peop. Rep. China
 SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 8
 PP.
 CODEN: CNXXEV
 DOCUMENT TYPE: Patent
 LANGUAGE: Chinese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

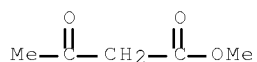
PATENT NO. ----- -----	KIND ----	DATE -----	APPLICATION NO. -----	DATE
CN 1161362	A	19971008	CN 1997-100755	199702 21
CN 1048517	C	20000119		
PRIORITY APPLN. INFO.:			CN 1997-100755	199702 21

AB The adhesive/sealant is prepared by addition polymerizing a polyether triol (e.g., polypropylene glycol glycerol ether) with an aromatic diisocyanate (e.g., MDI and TDI), chain-extending the urethane prepolymer with C3-4 diol (e.g., propanediol), and blocking the polymers with a block agent (e.g., Et acetoacetate).

IT 105-45-3DP, Methyl acetoacetate, reaction products with
 NCO-terminated polyurethanes
 RL: IMF (Industrial manufacture); TEM (Technical or
 engineered material use); PREP (Preparation); USES (Uses)
 (preparation of one-component polyurethane adhesives and sealants)

RN 105-45-3 HCAPLUS

CN Butanoic acid, 3-oxo-, methyl ester (CA INDEX NAME)



IPCI C09J0175-04 [ICM,6]; C09K0003-10 [ICS,6]

IPCR C09J0175-04 [I,A]; C09J0175-08 [I,A]; C09K0003-10 [I,A]

CC 38-3 (Plastics Fabrication and Uses)

Section cross-reference(s): 42

IT Adhesives

Sealing compositions

(moisture-~~curable~~; preparation of one-component polyurethane
 adhesives and sealants)

IT 105-45-3DP, Methyl acetoacetate, reaction products with
 NCO-terminated polyurethanes 105-53-3DP, Diethyl malonate,

reaction products with NCO-terminated polyurethanes 108-59-8DP,
 Dimethyl malonate, reaction products with NCO-terminated
 polyurethanes 141-97-9DP, Ethyl acetoacetate, reaction products
 with NCO-terminated polyurethanes 6186-89-6DP, Methylene
 malonate, reaction products with NCO-terminated polyurethanes
 253353-52-5DP, Et acetoacetate-blocked
 RL: IMF (Industrial manufacture); TEM (Technical or
 engineered material use); PREP (Preparation); USES (Uses)
 (preparation of one-component polyurethane adhesives and sealants)

L30 ANSWER 12 OF 15 HCAPLUS COPYRIGHT 2011 ACS on STN
 ACCESSION NUMBER: 1997:121445 HCAPLUS Full-text
 DOCUMENT NUMBER: 126:132729
 ORIGINAL REFERENCE NO.: 126:25621a,25624a
 TITLE: Coating binder composition comprising a strongly
 activated carbanion-functional polymer and a
 crosslinker
 INVENTOR(S): Hendriks, Johannes Wilhelmus Maria
 PATENT ASSIGNEE(S): Dsm N.V., Neth.; Hendriks, Johannes Wilhelmus
 Maria
 SOURCE: PCT Int. Appl., 17 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

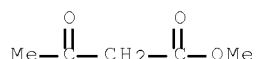
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 9641833	A1	19961227	WO 1996-NL221	199606 05
W: AL, AU, BB, BG, BR, CA, CN, CZ, EE, GE, HU, IL, IS, JP, KP, KR, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, TR, TT, UA, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9659128	A	19970109	AU 1996-59128	199606 05
EP 830422	A1	19980325	EP 1996-916370	199606 05
EP 830422	B1	20000315		
R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, NL, SE, PT, FI				
HU 9801933	A2	19981228	HU 1998-1933	199606 05
HU 9801933	A3	19991228		
AT 190637	T	20000415	AT 1996-916370	199606 05
ES 2146398	T3	20000801	ES 1996-916370	199606 05
PL 185685	B1	20030731	PL 1996-323827	199606

PRIORITY APPLN. INFO.: NL 1995-1000534 A 05
 199506
 09
 WO 1996-NL221 W
 199606
 05

AB The ~~crosslinker~~ contains aldehyde groups and the polymer is an alkyd resin or a polyester resin, and the coatings are rapid curing. The carbanion-functional groups are acetoacetate groups, malonate groups, acetoacetate groups or mixts. thereof. Preferably, the polymer is an alkyd resin having said carbanion-functional groups and having a hydroxyl number between 40 and 70 mg of KOH/g of resin and an acid number between 15 and 25 mg of KOH/g of resin.

IT ~~105-45-3DP~~, Methyl acetoacetate, reaction products with alkyd resins
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (coating binder composition comprising a strongly activated carbanion-functional polymer and a aldehyde ~~crosslinker~~)

RN 105-45-3 HCAPLUS
 CN Butanoic acid, 3-oxo-, methyl ester (CA INDEX NAME)



IPCI C08K0005-07 [ICM,6]; C08K0005-00 [ICM,6,C*]; C08L0067-08 [ICS,6]; C08L0067-00 [ICS,6,C*]; C08G0063-91 [ICS,6]; C08G0063-00 [ICS,6,C*]
 IPCR C08K0005-00 [I,C*]; C08K0005-07 [I,A]; C09D0167-00 [I,C*]; C09D0167-00 [I,A]; C09D0167-08 [I,C*]; C09D0167-08 [I,A]
 CC 42-10 (Coatings, Inks, and Related Products)
 ST carbanion polyester rapid curing coating; aldehyde ~~crosslinker~~ carbanion polyester coating; alkyd resin carbanion rapid curing coating
 IT Crosslinking agents
 (coating binder composition comprising a strongly activated carbanion-functional polymer and a aldehyde ~~crosslinker~~)

IT Alkyd resins
 Polyesters, uses
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (coating binder composition comprising a strongly activated carbanion-functional polymer and a aldehyde ~~crosslinker~~)

IT Aldehydes, uses
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
 (coating binder composition comprising a strongly activated carbanion-functional polymer and a aldehyde ~~crosslinker~~)

IT Coating materials
 (fast-drying; coating binder composition comprising a strongly activated carbanion-functional polymer and a aldehyde

crosslinker)

- IT Fatty acids, uses
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (tall-oil, reaction products with alkyd resins and Me acetoacetate; coating binder composition comprising a strongly activated carbanion-functional polymer and a aldehyde crosslinker)
- IT 105-45-3DP, Methyl acetoacetate, reaction products with alkyd resins 26659-15-4DP, Pentaerythritol-phthalic anhydride copolymer, esters with tall-oil fatty acid, reaction products with Me acetoacetate
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (coating binder composition comprising a strongly activated carbanion-functional polymer and a aldehyde crosslinker)
- IT 50-00-0, Formaldehyde, uses 111-30-8, Glutaraldehyde
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
 (coating binder composition comprising a strongly activated carbanion-functional polymer and a aldehyde crosslinker)
- OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)
- REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L30 ANSWER 13 OF 15 HCAPLUS COPYRIGHT 2011 ACS on STN

ACCESSION NUMBER: 1981:551624 HCAPLUS Full-text
 DOCUMENT NUMBER: 95:151624
 ORIGINAL REFERENCE NO.: 95:25397a,25400a
 TITLE: Blocked polyisocyanate-isocyanurates
 INVENTOR(S): Gras, Rainer; Wolf, Elmar
 PATENT ASSIGNEE(S): Chemische Werke Huels A.-G., Fed. Rep. Ger.
 SOURCE: Ger. Offen., 16 pp.
 CODEN: GWXXBX
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	
DE 3001060	A1	19810716	DE 1980-3001060	19800112
DE 3001060	C2	19891012		
PRIORITY APPLN. INFO.:			DE 1980-3001060	19800112

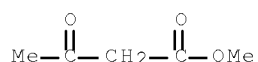
- AB Diisocyanates [e.g., 3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate (I) and 2,2,4(2,4,4)-trimethylhexamethylene-1,6- diisocyanate] are trimerized to give isocyanurate group-containing polyisocyanates which are blocked with acidic H-containing blocking agents (e.g., malonic acid dialkyl esters and acetoacetic acid alkyl esters). The blocked polyisocyanate-isocyanurates are useful as hardeners for single-component enamels for wire insulation. Thus,

1000 parts I was heated at 120° for 3 h in the presence of 0.5 part catalyst consisting of 1 part triethylenediamine and 2 parts propylene oxide to give a product containing 67% trimer and 33% pentamer. Then, 100 parts of the above product was treated with 58.1 parts di-Et malonate at 85° in the presence of NaOMe to give a blocked product containing a blocked and free NCO content of 10.5 and 0.4%, resp.

IT 105-45-3DP, reaction products with isocyanurate-containing aliphatic and cycloaliph. polyisocyanates
 RL: PEP (Physical, engineering or chemical process); PREP (Preparation); PROC (Process)
 (manufacture and properties of)

RN 105-45-3 HCAPLUS

CN Butanoic acid, 3-oxo-, methyl ester (CA INDEX NAME)



IPCI C08G0018-80 [ICM]

IPCR C07D0231-52 [I,A]; C08G0018-80 [I,A]

CC 36-2 (Plastics Manufacture and Processing)

IT Crosslinking agents

(blocked polyisocyanate-isocyanurates, for wire enamels)

IT Electric insulators and Dielectrics

(coatings, crosslinking agents for, for wire)

IT 108-80-5D, isocyanate derivs., reaction products with dialkylmalonates and alkyl acetoacetates

RL: MOA (Modifier or additive use); USES (Uses)

(crosslinking agent, for single-component wire enamels)

IT 105-45-3DP, reaction products with isocyanurate-containing aliphatic and cycloaliph. polyisocyanates 105-53-3DP, reaction products with isocyanurate-containing aliphatic and cycloaliph. polyisocyanates 108-59-8DP, reaction products with isocyanurate-containing aliphatic and cycloaliph. polyisocyanates 141-97-9DP, reaction products with isocyanurate-containing aliphatic and cycloaliph. polyisocyanates 15646-96-5DP, reaction products with dialkyl malonates and alkyl acetoacetate 53895-32-2DP, reaction products with dialkyl malonates and alkyl acetoacetate 79411-28-2DP, reaction products with dialkyl malonates and alkyl acetoacetate

RL: PEP (Physical, engineering or chemical process); PREP

(Preparation); PROC (Process)

(manufacture and properties of)

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L30 ANSWER 14 OF 15 HCAPLUS COPYRIGHT 2011 ACS on STN

ACCESSION NUMBER: 1971:450002 HCAPLUS Full-text

DOCUMENT NUMBER: 75:50002

ORIGINAL REFERENCE NO.: 75:7911a,7914a

TITLE: Metal chelates of β -oxoesters

INVENTOR(S): Reeder, James A.

PATENT ASSIGNEE(S): British Columbia Research Council

SOURCE: U.S., 5 pp.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. -----	KIND ----	DATE -----	APPLICATION NO. -----	DATE
US 3578619	A	19710511	US 1969-803471	196902 28

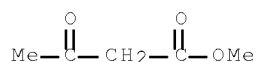
PRIORITY APPLN. INFO.:	US 1969-803471	196902 28
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AB Metal chelates of β -ketoesters derived from higher alcohols, glycols polyols, or polymers containing hydroxyl groups were prepared by treating a higher alcohol, glycol, polyol or polymer containing hydroxyl groups with a metal chelate of a β -ketoester derived from a volatile alcohol, so that a transesterification occurred with elimination of the volatile alcohol. Thus, tris(ethyl acetoacetato)copper(II) in dry amyl alcohol was heated 20 hr on a steam bath and the product worked up to give amyl acetoacetate copper complex. The process was also used for chain extending polyester prepolymers with hydroxy end groups, for cross- linking ethyl cellulose and for preparing modified alkyd. resins.

IT 105-45-3DP, Acetoacetic acid, methyl ester, beryllium complexes, polyester with 2,2-dimethyl-1,3-propanediol
RL: PREP (Preparation)
(preparation of)

RN 105-45-3 HCAPLUS

CN Butanoic acid, 3-oxo-, methyl ester (CA INDEX NAME)



INCL 260022000

IPCI C07C [ICM]; C07D [ICS]

NCL 528/301.000; 106/018.350; 528/308.000; 528/345.000; 536/058.000; 554/071.000; 554/074.000; 554/076.000; 554/223.000; 554/224.000; 554/227.000; 556/040.000; 556/183.000

CC 36 (Plastics Manufacture and Processing)

ST ketoester metal chelate transesterification; polyester metal chelate transesterification; crosslinked cellulose transesterification; alkyd resin modified transesterification

IT Crosslinking
(of ethylcellulose, with ketoester metal chelates)

IT 9004-57-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(crosslinking of, by transesterification with tris(ethyl acetoacetato)aluminum)

IT 105-45-3DP, Acetoacetic acid, methyl ester, beryllium complexes, polyester with 2,2-dimethyl-1,3-propanediol
105-45-3DP, Acetoacetic acid, methyl ester, copper complexes, polyester with 2,2-dimethyl-1,3-propanediol
105-45-3DP, Acetoacetic acid, methyl ester, copper complexes, polyester with diethylene glycol and maleic anhydride
105-45-3DP, Acetoacetic acid, methyl ester, copper complexes, polymer with adipic acid, ethylene glycol and 1,2-propanediol 141-97-9DP, Acetoacetic acid, ethyl ester,

aluminum complexes, polyester with adipic acid, ethylene glycol and 1,2-propanediol 141-97-9DP, Acetoacetic acid, ethyl ester, aluminum complexes, polyester with diethylene glycol 141-97-9DP, Acetoacetic acid, ethyl ester, aluminum complexes, polyester with diethylene glycol and maleic anhydride 1779-60-8DP, Acetoacetic acid, propyl ester, metal complexes 6624-84-6DP, Acetoacetic acid, pentyl ester, copper complexes 15556-32-8P 15556-37-3P 22603-14-1P 33198-03-7P 33198-04-8P 33198-05-9P 33198-06-0P 33198-07-1P 33198-08-2P 33360-76-8P

RL: PREP (Preparation)
(preparation of)

OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)

L30 ANSWER 15 OF 15 HCAPLUS COPYRIGHT 2011 ACS on STN
ACCESSION NUMBER: 1969:440316 HCAPLUS Full-text
DOCUMENT NUMBER: 71:40316
ORIGINAL REFERENCE NO.: 71:7475a,7478a
TITLE: Metal chelates of β -ketoesters
INVENTOR(S): Reeder, James A.
PATENT ASSIGNEE(S): British Columbia Research Council
SOURCE: Can., 18 pp.
CODEN: CAXXA4
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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CA 807680		19690304	CA	196711 08

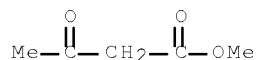
GI For diagram(s), see printed CA Issue.

AB The title compds., useful in protective coating and varnish compns., are prepared by transesterification at 80-170° of a metal chelate of a β -keto ester, derived from a volatile alc., with a higher alc., glycol, polyol, or a polymer containing OH groups. Thus, a solution of 13.0 g. bis(Et acetoacetato)copper (II) in 35 ml. dry PrOH was fractionated slowly for 3 hrs. with continuous addition of PrOH until only pure PrOH was obtained to yield 13.2 g. (94%) of pure I(R = Pr, M = Cu, n = 2), m. 131-2.5° (Et2O). The following I were similarly prepared (R, M, n, and m.p. given): amyl, Cu, 2, 99-103°, (hexane); Pr, Al, 3, - (b0.5 161-9°, n20D 1.5030). Polymeric chelates are similarly prepared from bis(Me acetoacetato)copper (II) (II) and Me2C(CH2OH)2 (III); from bis(Me acetoacetato)beryllium (II) and III; from tris(Et acetoacetato)aluminum (III) (IV) and diethylene glycol (V); from II and a polyester (VI) obtained from adipic acid, ethylene glycol, and propylene glycol; from VI and IV; from II and a polyester (VII) of maleic anhydride and V: and from VII and IV. Et cellulose (VIII) is crosslinked by transesterification with IV to give clear films with greater resistance to heat and solvents than those obtained from uncrosslinked VIII. A linseed oil monoglyceride-phthalic anhydride prepolymer is chain-extended by transesterification with IV to give a modified alkyd resin useful as a clear varnish for wood.

IT 105-45-3DP, Acetoacetic acid, methyl ester, metal complexes

RL: SPN (Synthetic preparation); PREP
(Preparation)
(preparation of)

RN 105-45-3 HCAPLUS
 CN Butanoic acid, 3-oxo-, methyl ester (CA INDEX NAME)



CC 42 (Coatings, Inks, and Related Products)
 ST keto ester chelates; chelates keto ester; metal chelates;
 acetoacetic ester chelates; polymer metal chelates; varnishes; ethyl
 cellulose crosslinked; polyester chelates; alkyd resin
 IT 9004-57-3
 RL: USES (Uses)
 (metal chelates-crosslinked, films of)
 IT 105-45-3DP, Acetoacetic acid, methyl ester, metal
 complexes 141-97-9DP, Acetoacetic acid, ethyl ester, metal
 complexes 1779-60-8DP, Acetoacetic acid, propyl ester, metal
 complexes 6624-84-6DP, Acetoacetic acid, pentyl ester, metal
 complexes 15556-32-8P 15556-37-3P 22603-14-1P 33198-03-7P
 33198-04-8P 33198-05-9P
 RL: SPN (Synthetic preparation); PREP
 (Preparation)
 (preparation of)

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(FILE 'HOME' ENTERED AT 13:06:26 ON 13 MAY 2011)

FILE 'HCAPLUS' ENTERED AT 13:07:44 ON 13 MAY 2011

E US2006-539048/AP

L1 1 S E3
 SEL RN

FILE 'REGISTRY' ENTERED AT 13:08:57 ON 13 MAY 2011

L2 12 S E1-12

FILE 'LREGISTRY' ENTERED AT 13:19:39 ON 13 MAY 2011

L3 STR

FILE 'REGISTRY' ENTERED AT 13:20:25 ON 13 MAY 2011

L4 50 S L3
 L5 152896 S L3 FUL
 L6 4 S L5 AND L2

FILE 'HCAPLUS' ENTERED AT 13:25:11 ON 13 MAY 2011

L7 5267 S L6
 L8 173 S L6(L)PREP+ALL/RL

FILE 'LREGISTRY' ENTERED AT 13:26:11 ON 13 MAY 2011

L9 STR L3

FILE 'REGISTRY' ENTERED AT 13:28:35 ON 13 MAY 2011

L10 50 S L9 SSS SAM SUB=L5
 L11 STR L9
 L12 50 S L11 SSS SAM SUB=L5
 L13 1164 S L11 SSS FUL SUB=L5
 SAV L13 BOY048/A


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L14          SCR 2068
L15          0 S L11 AND L14 SSS SAM SUB=L5
L16          11 S L11 AND L14 SSS FUL SUB=L5
              SAV L16 BOY048S1/A
L17          50 S L3 AND L14 SSS SAM SUB=L5
L18          STR L3
L19          44 S L18 AND L14 SSS SAM SUB=L5
L20          SCR 2070
L21          35 S L18 AND L20 SSS SAM SUB=L5
L22          STR L18
L23          20 S L22 AND L20 SSS SAM SUB=L5
L24          SCR 1838
L25          2 S L22 AND L20 NOT L24 SSS SAM SUB=L5
L26          30 S L22 AND L20 NOT L24 SSS FUL SUB=L5
              SEL L26 RN 17 18
L27          2 S E13-14

```

FILE 'HCAPLUS' ENTERED AT 14:27:36 ON 13 MAY 2011

```

L28          2 S L27
L29          QUE CURE# OR CURABLE OR CURING OR CROSSLINK? OR CROSS(W)L
L30          15 S L8 AND L29

```

FILE 'REGISTRY' ENTERED AT 14:33:13 ON 13 MAY 2011

FILE 'HCAPLUS' ENTERED AT 14:33:15 ON 13 MAY 2011

```

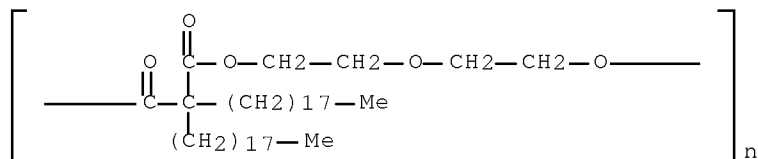
=> d que sstat l26
'SSTAT' IS NOT VALID HERE
For an explanation, enter "HELP DISPLAY QUERY".

```

```

=> d que stat l26
L3          STR

```

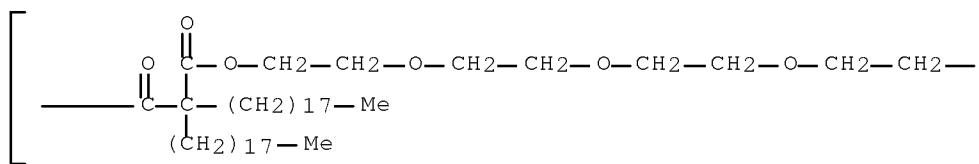


NODE ATTRIBUTES:
 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
 RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 6

STEREO ATTRIBUTES: NONE
 L5 152896 SEA FILE=REGISTRY SSS FUL L3
 L20 SCR 2070
 L22 STR

PAGE 1-A



NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 9

STEREO ATTRIBUTES: NONE

L24 SCR 1838

L26 30 SEA FILE=REGISTRY SUB=L5 SSS FUL L22 AND L20 NOT L24

100.0% PROCESSED 145 ITERATIONS

30 ANSWERS

SEARCH TIME: 00.00.01

=>